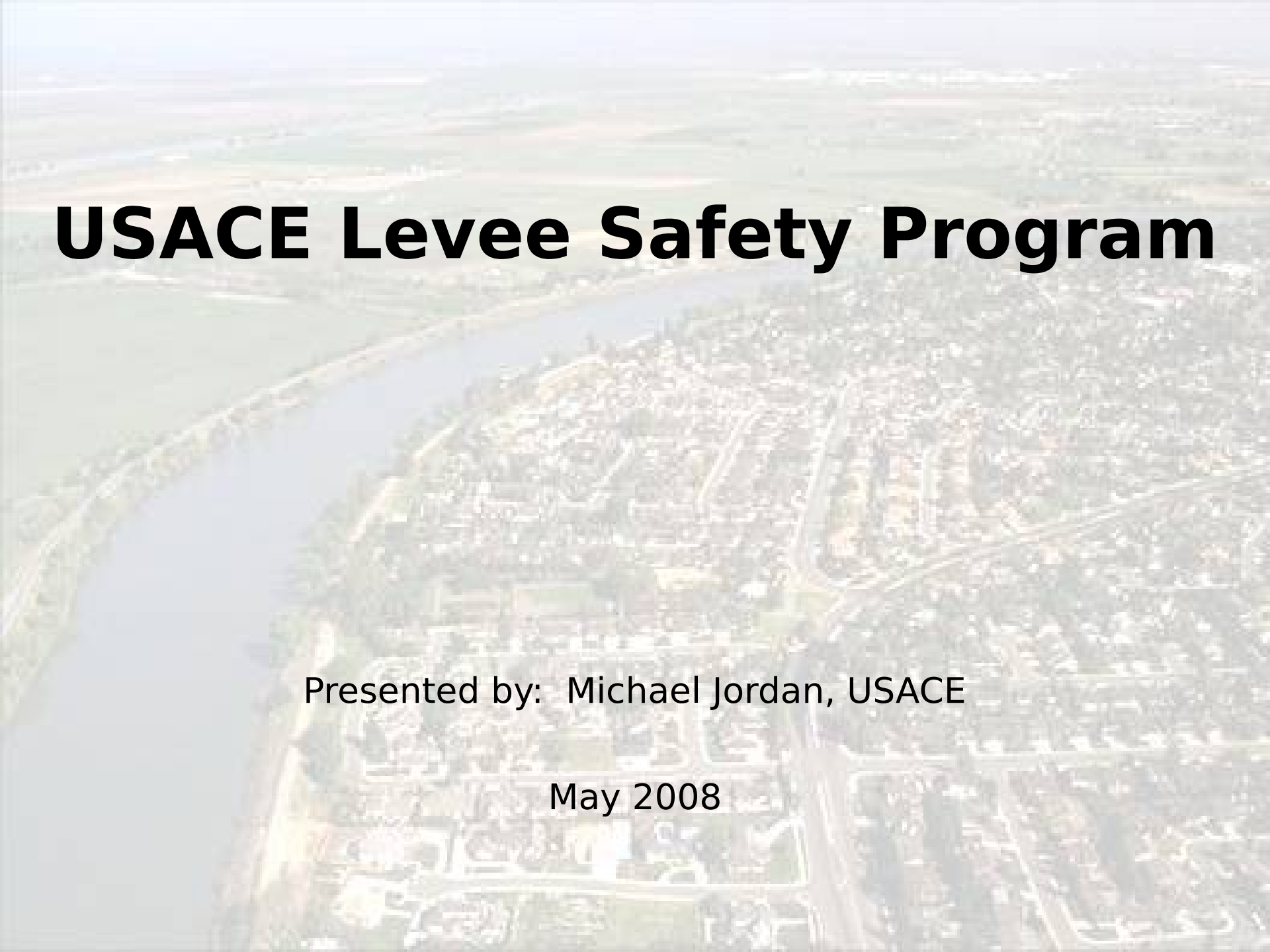


An aerial photograph of a river flowing through a city. The river is on the left side of the image, and the city is on the right. The city has a grid-like street pattern and many buildings. The river is a light blue color, and the city is a mix of green and brown. The text "USACE Levee Safety Program" is overlaid on the image in a large, bold, black font.

USACE Levee Safety Program

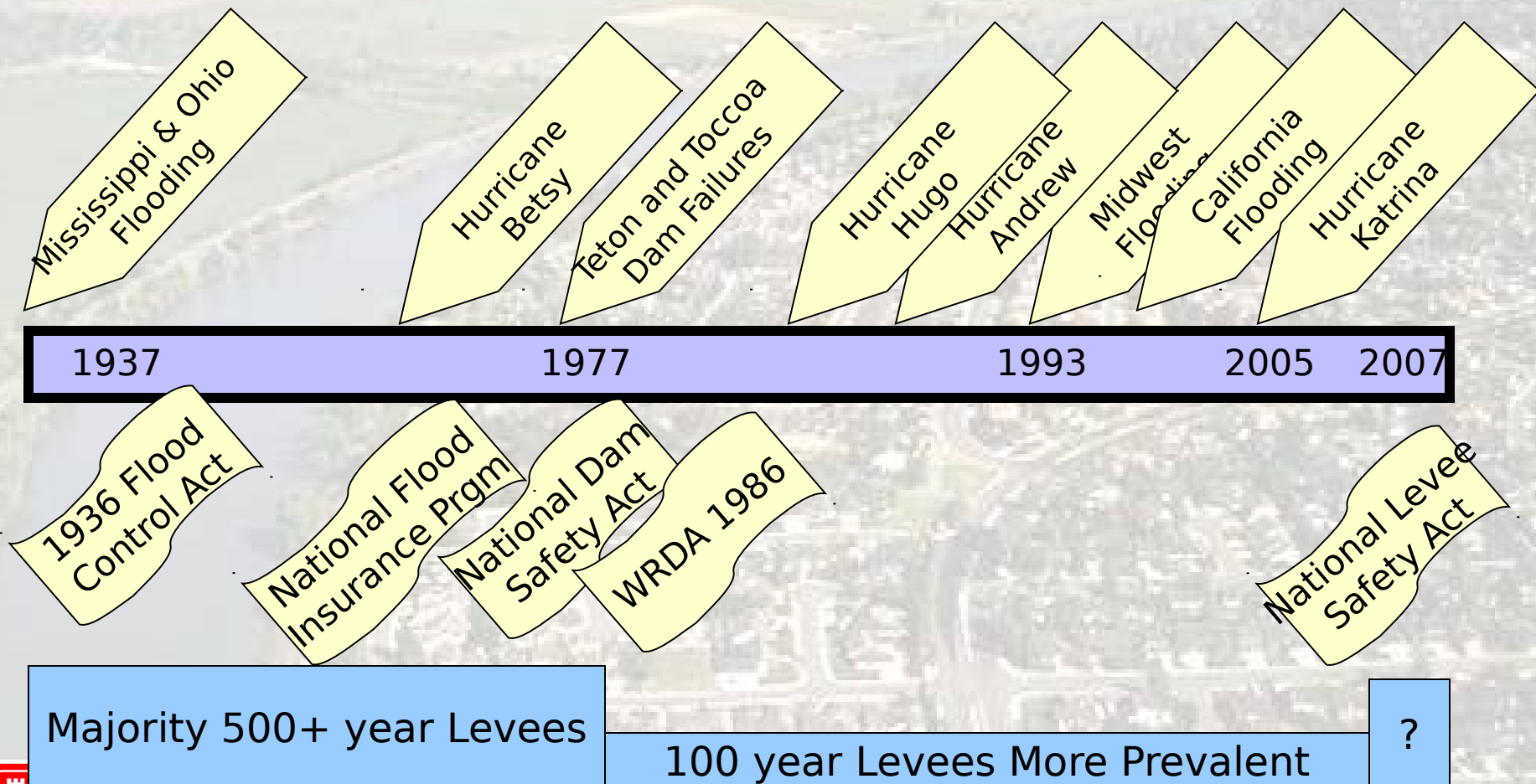
Presented by: Michael Jordan, USACE

May 2008

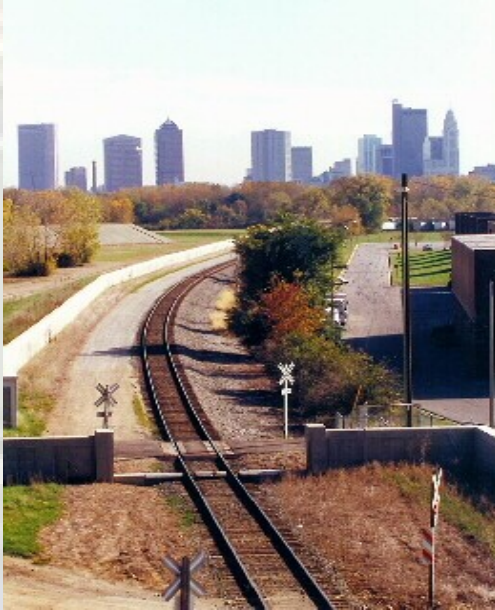
Topics

- **Historic Overview**
- **Program Overview**
- **National Levee Inventory**
- **Inspections and Assessments**
- **National Levee Safety Act 2007**
- **Key Activities**

Historic Perspective



Levee Safety Program Mission



West Columbus,
Ohio

Assess the integrity and viability of levees and recommend actions to assure that levee systems do not present unacceptable risks to the public, property, and the environment.

Program
Objectives:



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**Hold Public Safety Paramount
Reduced Economic Impacts
Maximize Cost Effectiveness
Develop Reliable and Accurate
Information
Build Public Trust and Acceptance**

Levee Safety Program Organization

Flood Risk Management Program

Champion - Mr. Ed Hecker

Program Director - Pete Rabbon

HQUSACE Levee Safety Management Team

Levee Safety Officer - Steve
Stockton

Special Assistant - Eric
Halpin

Program Manager - Tammy
Conforti

Levee Safety Committee

National Teams

Inventory &
Database

Team Lead:
Tim Pangburn

Assessment
Methodology

Team Lead
Andy Harkness

ICW Inspection
Team

Team Lead
Dale Munger

Policy &
Procedures Team

Team Lead
Michael Bart

Levee Inspector
Tool

Team Lead
Kevin Carlock

Certification ETL

Team Lead
Mike Deering

Regional Teams

MSC Levee
Teams

District Levee
Teams



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Implementation Guidance

- **Issued to field in November**
- **Establish Levee Safety Officers**
- **Establish Levee Safety Program Managers**
- **Submit plans for organizational structure**
- **Use revised inspection checklist**
- **Describes the different tiers of inspections**
- **Provides guidance for inspection intervals**
- **Announces training for the inspection tool**
- **Informs of future NFRMP guidance**



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FEMA NFIP

Objective: Communicate the most current information for flood insurance purposes.

Universe of Levees

100-year

Level of Protection

NFIP & CORPS

Federal O&M

USACE built / Local O&M

Local built / Enrolled in RIP

CORPS only

1

2

3

4

USACE Dec07
Not to scale

Levee Categories

New Nexus from WRDA 2007

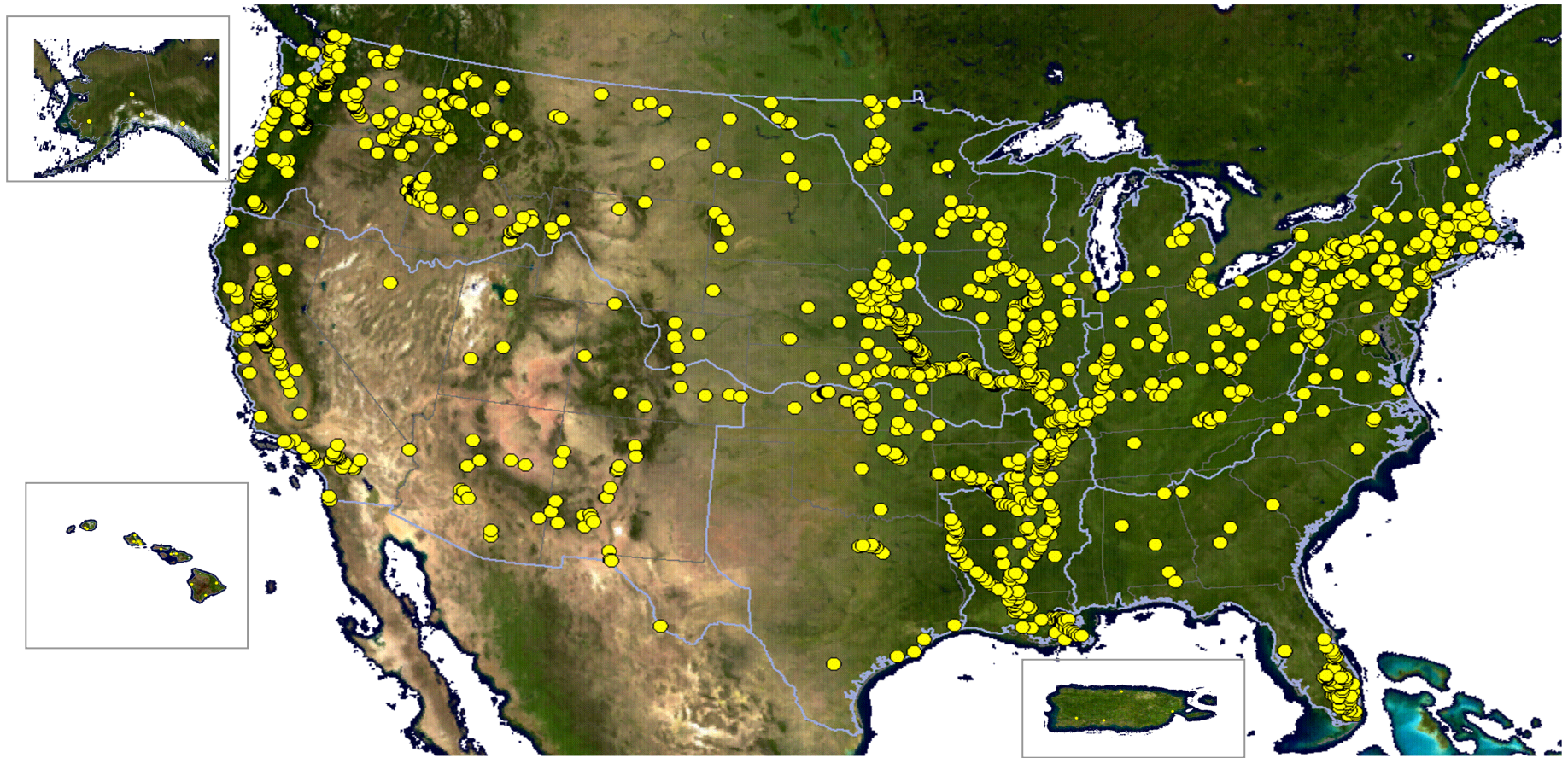
USACE Inventory and Assessment

Objective: **Assess** all levees in USACE programs, regardless of level of protection.

WRDA Authorities

Objective: **Inventory** all levees in nation, lead strategic plan for a National Levee Safety Program

Location of Corps Levees



Levee Inspection Program

Routine Inspection: Verifies proper operation & maintenance activities conducted by the public sponsor.

Periodic Inspection: Verifies proper operation and maintenance and evaluates structure's operational adequacy, structural stability and identifies components and features that the sponsor needs to monitor over time.

Periodic Assessment: Combination of PI and potential failure mode and consequences analysis used for initial screening and prioritization of RA.

Risk Assessment: Process of identifying the likelihood and consequences of levee failure to provide the basis for informed decisions on a course of action.



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Risk Assessment Outcomes

- **Levee Safety Action Classification**
- **Consequences**
 - **Relative Annualized Loss of Life**
 - **Relative Economic Damage**
 - **Others, environmental, etc**
- **Component Risk - What is driving risk**
- **Information on data quality and gaps**
- **Issues that influence certification**
- **Documentation of confirmed failure modes**
- **Recommended risk management actions**



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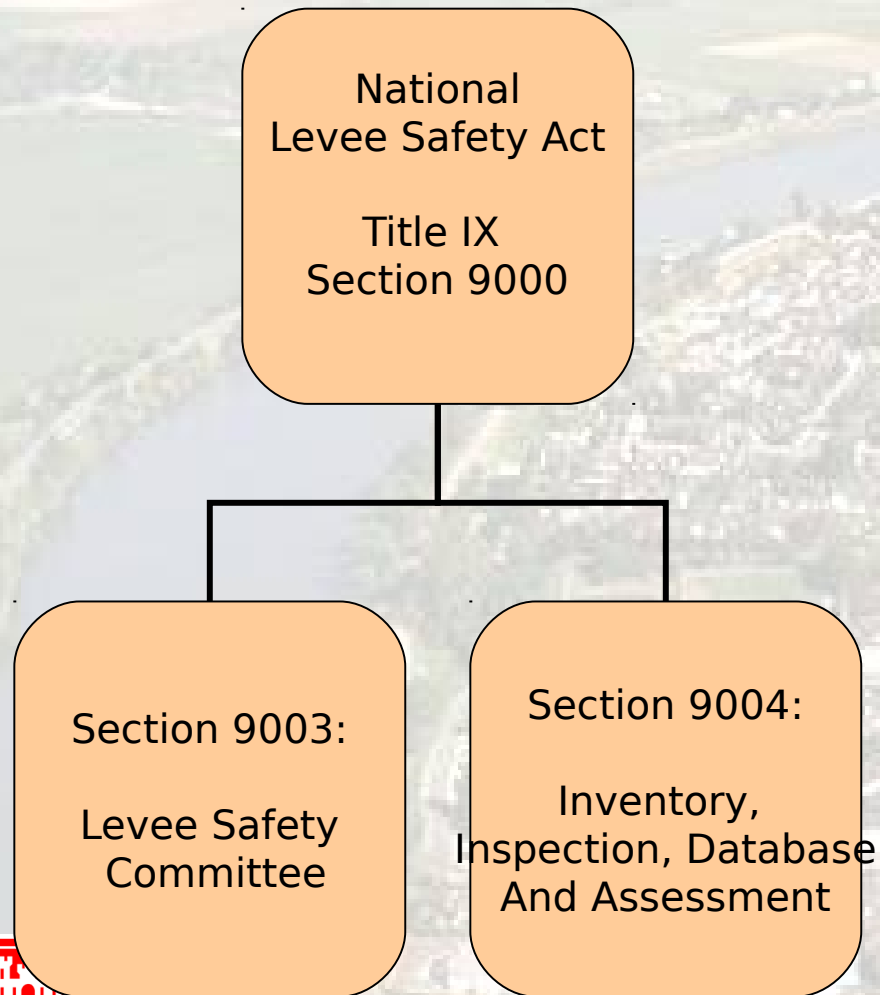
FY 2008 Inspection Program Priority Activities

- **Complete I-Wall Evaluations**
- **Routine Inspections**
- **Automated Inspection Tool Training**
- **Vertical Datum Evaluations**
- **Coordination with FEMA on PALs**
- **Other Activities - HQUSACE Approval**
- **No inspection funds will be allocated to perform certifications**



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Background on WRDA 2007 National Levee Safety Act



Complements Existing Activities & Authorities

Two Major Components:

- **A Strategic Plan, Not a Program**
- **Safety Data Collection**

“One Time” Nature

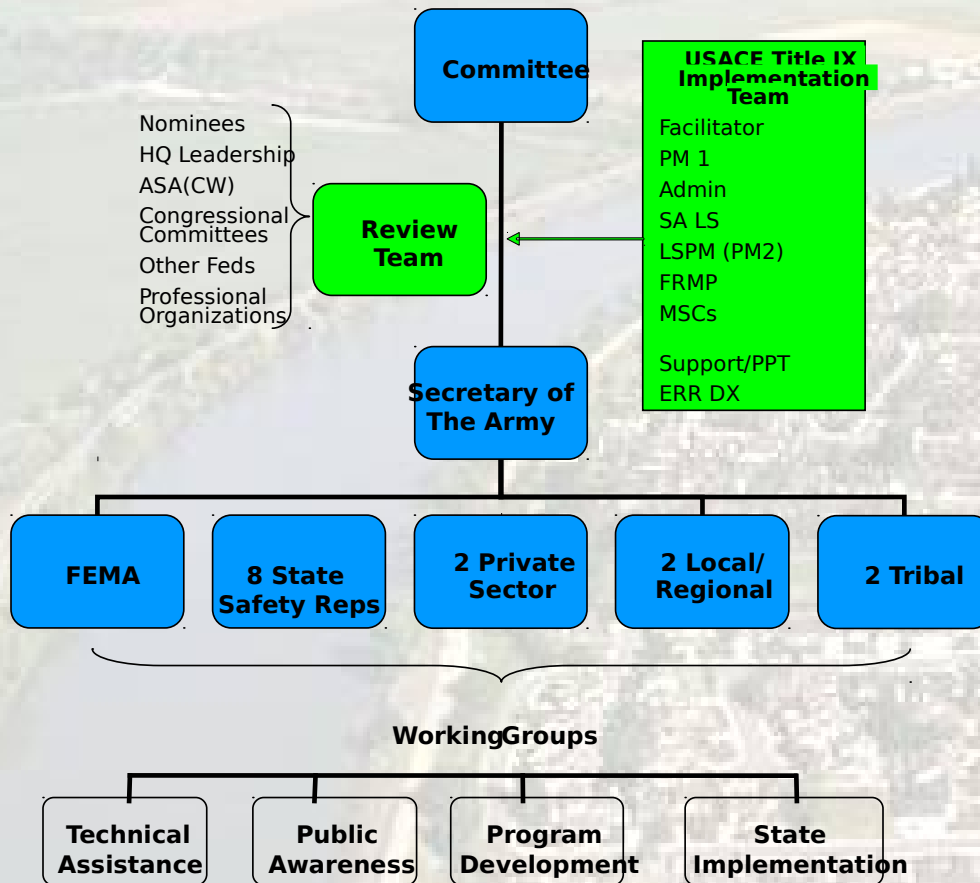
Levees Include:

- **Hurricane, Storm & Flood**
- **Structures:**
 - **Earthen embankments**
 - **Floodwalls**
 - **Structures along canals**



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National Levee Safety Committee Section 9003

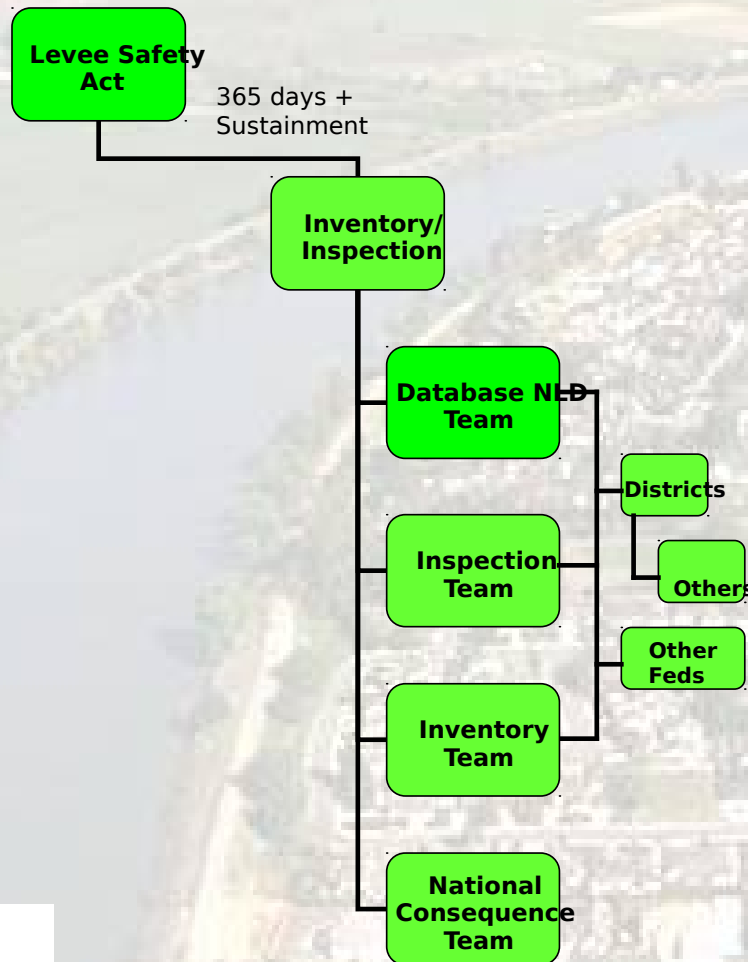


- **180 day schedule to develop a strategic implementation plan on 9 specific goals**
- **16 person committee**
- **Supported by USACE**
- **Review group**
- **Organized into working groups**



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Inventory & Inspection Section 9004



- **Implemented by USACE as a continuation of FY06 supplemental**
- **Inventory, inspection, & consequence assessment: "one time"**
- **Database management continuing requirement**
- **Addresses security**
- **Less urgent, but much larger half of the act**
- **Report due in 12 Months**



Challenges & Issues

- **WRDA Authorization: \$20M for 6 years**
 - **98% for Section 9004**
 - **Appropriations:**
 - **FY08 - none in budget line item**
 - **FY09 - ?**
- **Other Federal Agency Impact**
- **Cost Sharing Authorities for Section 9004**
- **FACA Does Not Apply to Section 9003**
- **Nominations from ASFPM, NAFSMA, and ASDSO received**



Program Activities

Program/Activity (start date)	Schedule
National Levee Database (2006)	On-going
Robust Routine Inspections (2007)	Annually
Screening Risk Assessments (2008)	One Time
Periodic Inspections (2009)	Every 5 Years
Periodic Risk Assessments (2010)	Every 10 Years
Levee Certification Guidance (2007)	Every 10 Years
Levee Safety Policy and Procedures Team (2007)	On-going



Flood Risk Management Program Website

<http://www.iwr.usace.army.mil/nfrmp/>



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